

Virginia Wildlife

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NANCY LEE BURNSTON '72

Virginia Wildlife

**Dedicated to the Conservation of
Virginia's Wildlife and Related Natural Resources
and to the Betterment of
Outdoor Recreation in Virginia**

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SEPTEMBER

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Observations, conclusions and opinions expressed in *Virginia Wildlife* are those of the authors and do not necessarily reflect those of the members or staff of the Commission of Game and Inland Fisheries.

COVER: Red fox, in late summer woods. Our artist: Mrs. Robert Burneston of Catlett, Virginia.

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THE WHITE HOUSE

NATIONAL HUNTING AND FISHING DAY

BY THE PRESIDENT OF THE UNITED STATES OF AMERICA

A PROCLAMATION

For many years, responsible hunters and fishermen have been in the vanguard of efforts to halt the destruction of our land and waters and protect the natural habitat so vital to our wildlife.

Through a deep personal interest in our wildlife resources, the American hunter and fisherman have paved the way for the growth of modern wildlife management programs. In addition, his purchase of licenses and permits, his payment of excise taxes on hunting and fishing equipment, and his voluntary contributions to a great variety of conservation projects are examples of his concern for wildlife populations and habitat preservation.

His devotion has promoted recreational outlets of tremendous value for our citizens, sportsmen and non-sportsmen alike. Indeed, he has always been in the forefront of today's environmental movement with his insistence on sound conservation programs.

In recognition of the many and worthwhile contributions of the American hunter and angler, the Congress, by Senate Joint Resolution 117, has requested the President to declare the fourth Saturday of September 1972 as National Hunting and Fishing Day.

NOW, THEREFORE, I, RICHARD NIXON, President of the United States of America, do hereby designate Saturday, September 23, 1972, as National Hunting and Fishing Day.

I urge all our citizens to join with outdoor sportsmen in the wise use of our natural resources and in insuring their proper management for the benefit of future generations.

IN WITNESS WHEREOF, I have hereunto set my hand this second day of May, in the year of our Lord nineteen hundred seventy-two, and of the Independence of the United States of America the one hundred ninety-sixth.



Richard Nixon

Buzzing for Bass

By PETE ELKINS
Lexington



Rufus Eubank swings a husky Kerr bass into his boat.

WILLOWS sprouted green and thick above the surface, creating shadowed openings along the shoreline of Kerr Reservoir. Before the widening ripples of Rufus Eubank's bass boat disturbed the bank, the cove had the mirrored quality of an outdoor magazine cover. Everything about the shoreline shouted "bass"! Always quick to heed that siren call, I dropped a green plastic worm alongside the water-darkened trunk of a willow.

My casts went unscathed. As I methodically nudged the weighted worm over the submerged maze of tree limbs and brush, Rufus began plying a white-skirted spinnerbait among the tree tops. Fishing a spinnerbait for largemouth bass is an old proven method, but the way Rufus worked the lure was contrary to everything I knew about the micropterus clan. The big-bladed spinnerbait would flash through the air, splash down beyond a "stickup" or treetop, and then Rufus would start cranking as rapidly as possible.

The speedy retrieve would bring the lure gurgling and sputtering by the treetop. I was just about to ask Rufus if he always fished his lures that fast, but a sudden grunt from the front of the boat stopped me.

Just as Rufus had started to lift the spinnerbait for another cast, a three pound largemouth fell all over the blades. At that close range, Rufus could do nothing except hang on as the bass tore noisy holes in the once placid water. Soon, Rufus's stout monofilament and wrists wrestled the bigmouth into the boat. That was my introduction to the exciting art of "buzzing" for bass. Like most bass fishermen, I'd always been partial to top-water bassing. Top-water fishing meant accurate casting, deft lure handling, calm water, and a bass willing to fight on or above the surface. Most of all, top-water fishing had always required a slow, deliberate retrieve. The old-timers always said to nudge the plug once, wait until all the ripples disappeared, then gently nudge the plug again. If you were a pipe smoker, so much the better: make your cast, let the plug soak while you fire up the pipe, nudge the plug once, smoke a pipeful, then nudge it again. And now I'd just seen a bass attack a lure moving faster than I'd thought a bass could swim.

Rufus's first bass struck early in the morning. It was followed by others throughout the day with convincing, if not spectacular, regularity. Every bass

caught fought its own individual fight, but they all shared one thing in common: an intense hatred of that shiny, gurgling spinnerbait buzzing among their tree-tops. Any top-water strike is always heart stopping as the lure suddenly disappears in a foam-smothered boil. With a buzzing spinnerbait, the jolt of the strike shoots from your wrists to your shoulders as a green thunderbolt slams into the sprinting lure. Water flies in every direction as if to escape the thrashing red-gilled fury in its vortex.

"Buzzed" bass seem to fight harder than conventionally-hooked largemouth. The rational reason for that may be the simple fact that many strikes occur alongside the boat on a short line, intensifying the fury and action of the moment. Yet, Rufus and I both like to think that "ole" bucketmouth fights even harder than usual because he comes up with a chip on his shoulder to find out what brash intruder is buzzing through his territory.

Buzzing is a physically demanding style of fishing. Since your retrieve must be rapid, you'll make at least three times as many casts as when using conventional bass lures. In fact, you'll probably cast a buzzing bait ten times for each cast with plastic worms. At the end of a day, your reeling wrist will be numb from all the exertion. Your left hand (if you toss plugs right-handed with a free-spool casting rig) will be a cramped claw from gripping your rod in anticipation of a jolting strike.

My hands that day on Kerr were complaining bitterly by late afternoon, but we had boated largemouth up to six pounds, and my spirit was fresh. In response to my complaints about aching wrists, Rufus pointed out that buzzing is less strenuous if your reel spool is filled to capacity and your rod is a bit longer than usual. An ideal buzzing rig might consist of a stout spinning rod with a fast-retrieve open-face mill. Unless you're an accomplished spinfisherman, you might lose some accuracy in exchange for easier reeling.

The fast retrieve "buzzing" method is at its best in areas of heavy cover or in shallow flats. Thus, casting accuracy and lure control are important ingredients of success. If you're like me, much of the sport of bass fishing comes from the satisfaction of a well-cast lure, sliding under an over-hanging branch or slipping between two protruding stumps. The punishment for sloppiness in casting thick cover with conventional bass lures is a hung lure, disturbed bass water, or, at worst, a lost lure. Spinnerbaits rarely hang if properly rigged with a short plastic worm covering the barb of the single hook. In fact, the deadliest way to buzz a lure is to cast beyond a treetop to avoid disturbing a largemouth lurking below the brush, then buzz the lure right through the middle of the brush.

Buzzing is most effective in May and June when the bass are near the top or spawning in shallow water. I



A "buzzed" largemouth violently protests the turn of events.

vividly recall one six-pound sow largemouth that Rufus encountered on Kerr. We had slipped quietly into a small arm of Butcher's Creek, gliding toward the thickly covered bank under silent electric power. Both of us worked partway down the right bank. No results. Then we both saw the spot: a weather-gray treetop tilted above a ten-foot wide pocket of open water. I rested my rod (and wrist) to watch. Rufus's spinnerbait nudged the grassy bank behind the treetop, then began its gurgling, frantic dance along the top back toward the orange bass boat. The spinnerbait made it

to the treetop. Water flew white and green as the large-mouth nailed the lure. She was huge as she completed a ponderous pirouette a foot above the water. I remembered too late the camera around my neck. When all the liquid dust had settled, she was hanging heavy in Rufus's firm thumblock. Her fins were worn and red, her belly was thick with roe, and the spinnerbait hung like a plastic beard below her lower lip.

After the spawning season when the sun looms July hot, buzzing is most effective early in the morning or late in the evening. With the frosty nights of late September through November come the wild ducks to Kerr's surface and the urge to again strike on top to Kerr's largemouth.



A stout rod, tough wrists, and a buzzing spinnerbait turn on Kerr's bass.

Buzzing Kerr in the autumn can also produce some finned surprises. One day last November, Rufus and one of his fishing clients encountered three striped bass in the ten pound and over class. Of course, that alone wouldn't be unusual on Kerr, but these stripers were right up in the brush with the largemouth, and struck fast-moving spinnerbaits just like the bucketmouths.

Bass fishing in Virginia is always a challenge, whether it consists of a fly rod popper alongside a duck blind in Back Bay or a big-bellied bass sucking in a plastic worm under twenty feet of water at Smith Mountain. If all goes well, I'd like to try all the bassing Virginia has to offer, but if I had to choose one way to catch largemouth, buzzing Kerr Reservoir would be the only choice.

Tidal Marshes--

Pastures of Plenty

By BERT LINDLER

Ashton, Idaho

VIRGINIA'S richest pastures have never been fertilized or plowed. Yet, since before the time of Christ, these green fields have been producing more food than man's most intensely cultivated cornfields. These green fields are the tidal marshes, Virginia's pastures of plenty.

Looking at a tidal marsh one might never suspect that here was one of the most productive homes for Virginia's wildlife. As far as the eye can see there is nothing but mud, water, and grass, connected with intertwining waterways. Only if one stays in the marsh through the changing of day into night, and the changing of summer to fall, and winter to spring will he be able to see the wildlife that is dependent upon the mud, water and grass of the tidal marsh.

During the day one has to search to find the residents of the marsh. One of the animals active in the daytime is the fiddler crab. Almost everyone has seen these crabs as they scurry back and forth in front of their little burrows. These crabs are able to venture about in the air because of a primitive lung which is beneath their shell. While scurrying on the mud these crabs are feeding on the algae that live in the mud itself. The fiddler crab lives on this perpetual diet of mud soup, and seems to do quite well.

The great blue heron may be seen during the day as it stalks the shallows for small fish. It is interesting to watch the heron hunt. His long legs and long neck are held rigid while he eases imperceptibly forward. Then, in a blue blur, his long bill shoots forward to pierce his prey.

Overhead, the marsh hawk may be seen as he circles and sweeps low over the marsh. Sooner or later, his patient, careful searching will be rewarded and he will swoop down to capture his prey.

When day passes to night a different set of animals are busy in the tidal marsh. Beneath the marsh grass muskrats are digging tunnels as they eat the succulent roots of the grass. Mink, vicious predators in the wild, are slipping up the muskrats' tunnels in order to surprise one of the muskrats. When a mink discovers a muskrat a fierce fight will begin, but the mink will invariably emerge the victor.

Raccoons with their bandit-like masks are prowling the shorelines in search of tempting morsels. Fiddler crabs are a likely catch, tasty and easy to come by. The many broken shells of the crabs can be found near most colonies of the fiddler crabs. You'll almost always find raccoon tracks by the shells.

The sleek brown otter also lives in the marsh. At night he will be swimming up the creeks searching for fish. The otter is a fine fisherman, but he apparently knows how to have his fun as well. Wherever you find otter, you're likely to find their slides. The otter will climb up the side of a high bank and slide on their wet bellies into the water.

When summer passes into fall, some new residents begin to visit the marsh. These are the many species of ducks and geese that will settle down in the waters of Virginia's tidal marshes as their rest on their long southward journey.

So, through the year many different animals will live within the tidal marsh. Virginia's tidal marshes are able to support such a large number of inhabitants for a very simple reason: the tidal marshes are a collecting spot for food.

Imagine for a moment how the cars and trucks jam up when an Interstate Highway narrows to a two-lane highway. The traffic is concentrated and slowed, and in these sections you will find many gas stations, curio shops and motels.

Likewise, in the tidal marshes the flow of rivers is concentrated and slowed. The reversal of the tides every six hours slows the water of the rivers. The loads of

Domes of marsh vegetation provide shelter for a family of muskrats, where they are safe in the cold winter—if their home's underwater entrance does not freeze.



The blazing energy of the sun is captured by the yellow-green fields of grass that carpet the marsh.

silt that the rivers have carried from the uplands are deposited to form the mud that the marsh is built upon.

As the mud collects, grass is able to grow. This grass is a very special grass that can be flooded by salt water and still survive. This grass is the power plant of the marsh. Without this grass to capture the sun's energy and store it in its tissues, the life of the marsh would be tremendously reduced. Few animals besides the muskrats eat the grass itself, but many animals eat the animals that feed on the ground-up bits of grass that float in and out with the tides.

Oysters, mussels, and minnows all strain the waters of the tidal marsh to extract the tiny bits of ground-up grass. And since these animals are eaten by many other animals in the marsh, the grass is of importance as an energy source to many, many animals.

In addition to providing food for the many residents of the marsh, the marsh grass serves to stabilize the mud and build up the marsh. In fact, over a long period of time, the marsh grass will actually serve to build up the level of the marsh so that the marsh is not flooded regularly. Then, other species of plants can begin to live on the marsh, and eventually a forest may develop on the marsh.

Mud, water, and grass and the shifting of the tides have helped to develop Virginia's tidal marshes. Now around one hundred different species of animals spend a part of their lifetime in the marsh and the marsh is able to provide more food for these animals than they could find in a cultivated cornfield. Virginia's tidal marshes are indeed pastures of plenty.



Rails at High Noon

By BOB GOOCH
Troy



I SHIFTED restlessly and the ancient rocker on the long veranda of the Wachapreague Hotel creaked.

I glanced at my watch. Eleven o'clock! Half of a glorious day gone and I had spent most of it merely admiring the rich marshes that stretched endlessly toward the rolling horizon of the Atlantic Ocean.

My gaze wandered to the picturesque boat basin where a fleet of colorful fishing vessels lay idle in their berths. There were many vacant berths as a half dozen or so boats had left at dawn for the fine sea trout fishing in the nearby Atlantic. I too had crawled out of bed at dawn, awakened by the clamor as the boats, loaded with eager anglers, had departed for the fishing grounds. I was soon back to bed, though, for a few more winks before a late breakfast.

Ron Knudsen and I also had an appointment to visit that broad expanse of salt water and marshes, but our shove-off time was set for 12 o'clock noon—when the tide started to flood the marshes.

We were going to hunt rails, and our guide, Joe

Caruthers, had promised to meet us at the dock about noon. "We hunt the high tide," Joe had said the evening before as we made arrangements in the lobby of the hotel.

Ron had wearied of the rocking chair hunting and was busy sorting his gear in the trunk of his car parked in the hotel lot. I joined him. We assembled and reassembled our gear and took frequent glances toward the dock, hoping to see our guide.

The late September day was warm and the skies were clear. No need for anything except light clothing and appropriate footwear. I wore knee-length rubber boots. The cleated rubber soles would provide good traction in the boat, and would also permit me to wade ankle deep water should the need arise. I also packed my chest waders—those I use for wading trout streams and fishing the surf. My gun was a light Remington 20 gauge automatic. I planned to shoot size 7½ high brass loads.

Ron decided to take advantage of the warm weather

and wade wet, slipping a pair of camouflage netting trousers over his wading pants. In view of the noon-day heat his foresight seemed good. I began to wonder how comfortable my waders would be.

Rail hunting out of Wachapreague can be a lazy man's sport if he wants it that way. The guides, or "pushers," do all of the work, poling the heavy boats through the marshes and up winding tidal creeks. The hunter, or hunters, stand in the bow and take their shots as the birds flush before the boat. Crack wing-shots insist it is like "shooting butterflies," but I have never found it so. Oh, I do not put it in the same class with dove or quail shooting, but I have seen some good shots miss the peculiarly flying birds.

The rail hunter needs an open bored gun. The salt air and water is tough on a shotgun and many hunters use an old gun—their second best, for example. However, if the hunter takes the proper care of his gun, protecting it from the salt spray and cleaning it thoroughly after the hunt, it will not be damaged. I have used a variety of guns in the rail marshes and none are any the worse for the exposure.

When hunters purchase shotgun shells specifically for hunting rails, they ordinarily choose low-brass size 9's; however, any size from 7½ to 9 will do nicely. Rails are fairly large birds when compared to doves or quail, and are not likely to slip through most load patterns. I used size 7½ on that September trip simply because I had several boxes left from a recent dove shoot.

Joe, our guide, soon made his appearance. We loaded our gear into his boat, climbed in and headed for the marshes. It was almost noon and lunch time, but we decided to hunt awhile before digging into the box lunches the hotel had prepared for us.

The boat was big and the bow roomy enough for two hunters to shoot from. Ron is equally adept at shots

Rail hunting is best when the tide floods the grassy marshes.

to his left or right, but I find those moving to my left the easiest. I took the port side of the boat. We agreed we would have exclusive rights to birds on our respective sides, but those dead ahead would be up for grabs.

About a mile out, Joe cut the motor and we started to drift over a grassy, but well flooded marsh. I gripped my gun tightly and took my position in the bow. A stiff breeze pushed the boat along, and Joe's long pole kept it on course. We soon drifted out of the grassy marsh and found ourselves again in open water.

Joe cranked the motor. We laid down our guns and started looking for better hunting grounds.

The birds we were hunting were the popular clapper rails, the only rail that lives in our salt marshes. Eastern Shore guides and many hunters fondly refer to them as marsh hens. They are chicken-like birds with short tails and long legs. Rails are good swimmers, but poor fliers, taking off in a peculiar, ungainly flight with long legs dangling. They are fairly large birds, averaging 10 to 12 ounces in weight and occasionally reaching a pound.

Rails are fairly easy to spot at high tide and it does not take an experienced hunter or nature observer long to pick up the knack of spotting them. They are often seen swimming ahead of the boats, but will usually flush before the boat gets too close. When caught in thick marsh grass they tend to sit tight, apparently feeling they are safer there than in flight. Guides beat the marshes with their poles in an attempt to flush them—and occasionally kill an unsuspecting bird.

Our boat had just entered a winding tidal creek

Ron Knudsen swings on a clapper rail flushed in front of the boat.



when Joe suddenly pointed, and we saw our first bird winging across the marshes—out of range. This was encouraging. Good guides can usually find birds on a high tide, but not always. Again, I tightened my grip on the little 20 gauge.

But Ron got the first chance as a pair of birds flushed on the starboard side of the boat. They were well within range and he dropped both. The rails fell about 20 yards from the boat—in about 6 inches of water. It was too shallow for the boat so Joe poled to the edge of the marsh and Ron climbed overboard to retrieve his game. As he did so another bird flushed and it was my turn. My second shot dropped the gangly bird and I

The water over the marshes was too shallow for the boat, and I could not help but feel that Joe welcomed this situation. Poling a heavy boat and a couple of hunters is no easy task.

In order to keep the birds moving we climbed out of the boat and started wading the marshes. We flushed the birds ahead of us much as you would walk up pheasants or other ground feeding birds. And with both feet planted solidly on the wet, but firm marsh lands, shooting was easier and less tricky than shooting from the moving and slightly rolling boat—at least I thought so.

As the tide receded and the water left the marshes, the shooting slowed and finally ended. Joe said we



Clapper rails, or marsh hens, average 10 to 12 ounces in weight and make tasty meals.

slid into my waders to do the retrieving.

Since we had apparently hit a pocket of game, Joe suggested we take our guns. And as I stooped to pick up my bird another one popped up. I missed.

Back in the boat with three birds we felt better. Joe again manned his long pole to move us slowly along the winding creek.

The rails were not plentiful on that golden September day, but we moved enough game to keep the action lively.

The tide peaked soon after we started hunting—and then started to recede. Much quicker than we preferred.

might as well call it a day. Between us we had a single limit of birds—plenty for a couple of tasty meals. Approximately three hours of hunting was all the high tide permitted.

Back aboard the boat we dug out the lunch boxes. Lunch had been forgotten as we worked the peak of the tide. We ate with one hand on our guns as Joe worked the boat slowly out of a narrow tidal creek we had deeply penetrated.

As we unloaded back at the dock, Joe took our birds for cleaning and icing. That aspect of a lazy man's hunting I can go for.

Jungle Cock Brotherhood Comes to Virginia

By NAT T. R. BURGWYN, *President*
Virginia Anglers Chapter
The Brotherhood of the Jungle Cock

YMCA Camp Weyanoke in Charles City County on June 24, 1972, was the scene of the First Annual Campfire of the Virginia Anglers Chapter of the Brotherhood of the Jungle Cock.

Forty six youngsters ranging in age from 7 to 17, and thirty-three dads participated in the day-long program of casting instructions, fishing, and conservation.

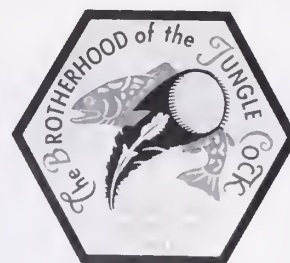
The Brotherhood of the Jungle Cock is an organization of "Men for Boys" moving together towards a common goal—the conservation and restoration of American game fishes.

Enjoying only a life estate in the out of doors, and morally charged in our time with the responsibility of handing it down unspoiled to tomorrow's inheritors, as states the Creed, each member of the Brotherhood pledges to annually take at least one boy a-fishing, instructing him as best he knows how in the responsibilities that are soon to be wholly his.

Each member promises that his creel limit will always be less than the legal restrictions and always well within the bounty of nature herself. He agrees also to conduct himself in such a fashion on the stream, lake, river, or pond as to make safe for others the heritage which is his.

Although The Brotherhood of the Jungle Cock is new to Virginia, it goes back to the year 1938 in the Catoctin Mountains of Maryland when Joseph W. Brooks, Jr., then chairman of the Fresh Water Committee of the Maryland State Game and Fish Protective Association, J. Hammond Brown, president of the same organization, and Frank L. Bentz, public relations director for the Maryland Game and Inland Fish Commission, planned a trout fishing outing for their friends on Big Hunting Creek. This party was termed The Anglers' Campfire and was so successful that it became an annual affair. In 1939, the Creed was adopted and the name changed to The Brotherhood of the Jungle Cock. A waxed neck feather of the jungle fowl used in tying artificial flies became the symbol of the organization.

Because of the high ideals of the organization, Mr. Aaron Strauss opened Camp Airy near Thurmont, Maryland, to the Brotherhood for the annual get-together. Each year in May approximately 400 boys and sponsors from the many parts of the country meet at Camp Airy for the three-day campfire.



Creed



We, who love angling, in order that it may enjoy practice and reward in the later generations, mutually move together towards a common goal—the conservation and restoration of American game fishes.



Towards this end we pledge that our creel limits shall always be less than the legal restrictions and always well within the bounty of Nature herself.



Enjoying, as we do, only a life estate in the out of doors, and morally charged in our time with the responsibility of handing it down unspoiled to tomorrow's inheritors, we individually undertake annually to take at least one boy a-fishing, instructing him, as best we know, in the responsibilities that are soon to be wholly his.



Holding that moral law transcends the legal statutes, always beyond the needs of any one man, and holding that example alone is the one certain teacher, we pledge always to conduct ourselves in such fashion on the stream as to make safe for others the heritage which is ours and theirs.

The aims of the Brotherhood have spread with chapters being organized in Ohio and Utah.

It was largely through the encouragement of Joe Brooks, now of Richmond, the only surviving founder and world-renowned fisherman, author, and fishing editor, and William DuVal, immediate past president of the Virginia Anglers Club, that the Brotherhood of the Jungle Cock was established in the Richmond area.

The Virginia Anglers Club, a 250 member organization, felt the need to expand its activities beyond its own membership to the youth of the community—training them in the fine art of fishing, and in the conservation of our game fishery. The Brotherhood of the Jungle Cock should meet these objectives.

JACK RANDOLPH APPOINTED



Jack Randolph, Lt. Col. U.S. Army Ret., has been appointed Game Commissioner for the Fourth Congressional District replacing E. Floyd Yates of Powhatan. Eddie Edgar of Norfolk, representing the Second Congressional District, was reappointed to a second term by Governor Holton at the same time. Edgar, who writes a column for the *Norfolk Ledger-Star*, is serving as chairman of the Commission during the 1972-1973 fiscal year.

Randolph resides at Willow Hill plantation in Prince George County. He spent much of his military career in Virginia and is well known to Virginians for his outdoor writing. He has written columns for several Virginia papers including the *Richmond News Leader* and continues to write on a free lance basis for major sporting magazines. As a sideline to his regular military duties, Randolph wrote an outdoor column for *Stars and Stripes* and other military publications as well as participating in the Sportsman's Corner for Armed Forces Radio and T.V. He has been a frequent contributor to the Game Commission's *Virginia Wildlife* magazine. His overseas assignments included Germany, where he was much impressed with their system of fish and wildlife management and hunter training, and a duty tour in Vietnam. He is an active hunter and fisherman, and while not working can usually be found with gun or rod in hand.

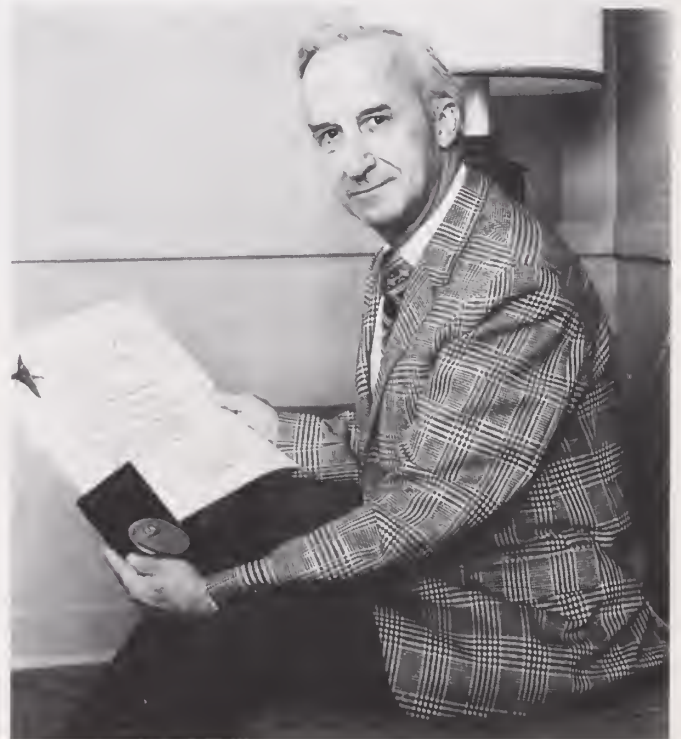
PHELPS GETS FLYWAY COUNCIL AWARD

Chester F. Phelps, Executive Director of the Virginia Commission of Game and Inland Fisheries, was presented the Charles Banks Belt Award "for the greatest contribution to waterfowl restoration in the Atlantic Flyway" at a meeting of the Atlantic Flyway Council at Sanibel Island, Florida, on August 1.

With the award there was presented a parchment scroll inscribed, "To the State of Virginia, Commission of Game and Inland Fisheries, in recognition of outstanding work of Chester F. Phelps, Executive Director, who displayed the foresight and leadership necessary to carry out a widely influential program for the preservation of the natural resources of the coastal zone which has greatly benefitted the migratory waterfowl and all the natural resources of the Atlantic Flyway." Phelps received an inscribed bronze medallion.

The Charles Banks Belt Award, named for one of the founders and first Chairman of the Atlantic Flyway Council, now has been presented eight times since its establishment in 1954. This year's recipient also was one of the founders of the Council. He has been active in it ever since, and has served as its chairman as well as holding other offices and committee assignments.

Commission photo by Kesteloo



CONSERVATIONGRAM

Commission Activities and Late Wildlife News ... At A Glance

DALTON NAMED ELM HILL REFUGE SUPERVISOR. Gary Dalton, formerly of Skipwith in Mecklenburg County, has been employed as Game Refuge Supervisor for the Game Commission's Elm Hill Refuge located below Kerr Dam. Dalton has a farm background with a strong interest in wildlife management and should fit into the position well. He has completed one year of schooling at Southside Virginia Community College and is in the process of completing his second year through night classes.

MILL PONDS RESTORED IN NORTHERN NECK. Hurricane damage to dams at Gordy's Mill Pond in Northumberland County and Chandler's Mill Pond in Westmoreland County has been repaired cooperatively by the Game Commission and the State Highway Department. The dams were completely washed out during the high water from Hurricane Agnes. Gordy's Mill Pond is located off Rt. 617 west of Hyacinth and Chandlers is on Rt. 3 west of Montross. The Game Commission has public fishing rights only to both lakes but the banks remain in private ownership.

MOUNT ROGERS STATE PARK HUNTING APPROVED. The State Board of the Department of Conservation and Economic Development has approved a resolution that will permit hunting this fall on approximately 1,200 acres of Mount Rogers State Park in Grayson County.

The Board's approval allows hunters access to the northern portion of the park and to U. S. Forest land beyond. The southern boundary for the restricted hunting area extends from the park's western border along the Stable, Main and Campground roadways to its eastern border.

Ben H. Bolen, Commissioner of State Parks, stated that the Board's consent, in addition, allows for the establishment of hunter parking in Massies Gap, also located within the park, and for hunter access to the National Forest land north of Massies Gap.

Other facilities at Mount Rogers State Park accommodate picnickers, sightseers, hikers and horseback riders.

COAL COMPANY CEDES RIGHTS TO PERMIT LAKE. The Penn Virginia Corporation has agreed to give up its mineral rights to approximately 100 acres of land to make possible the construction of Lake Keokee in Lee County, reports company General Manager W. F. Shupe. In addition to ceding these rights to the Game Commission, the company has agreed to refrain from any surface mining activities on the 802 acre watershed which feeds the lake. "This public spirited cooperation on the part of Penn Virginia Corporation should speed this project, which has been plagued with delays, so that hopefully construction can be completed within the next 12 months," said Game Commission Fish Division Chief Jack Hoffman.

The lake is being constructed on federal land within the Jefferson National Forest, but the federal government did not own the mineral rights to the tract. The proposed dam will be 47 feet high backing some 40 feet of water up a rugged mountain draw. The lake will support warm-water fishes and should be one of the most productive in the state. There are opportunities for associated recreational development such as camping areas and picnicking facilities on federal lands surrounding the lake.

IT appeared that every corn field in Botetourt County was either uncut or posted one afternoon last September when Charles Foster was searching for a spot to hunt doves. The Roanoke sportsman was beginning to lament his bad luck when, while driving along a rural road, he spotted several flocks of birds gathered around a distant hillside.

At first, he thought they were blackbirds. Some were stacked up in a tree while others were perched along a fencerow. Still others traded back and forth in streaks and slashes across the sky. They were doves!

The fact that there was no food nearby to attract



Charles Foster takes a stand along fence where doves often come in low on their way to pond for a drink.

them puzzled Charles. Nonetheless, he quickly went to a nearby farm house and was granted permission to hunt the area.

What Charles discovered was a major dove hunting bonus, a livestock watering pond where these popular migratory game birds were coming to wet their whistle after filling their craw in cane and corn fields some distance away. Charles enjoyed a good hunt that day, and still another one several days later when he invited me to tag along. A small livestock watering hole was drawing doves like a magnet.

Water hole dove shooting is a popular sport deeper south and in areas of the Southwest, but few gunners appear to take advantage of it in our state. One who does is Bob Cromer, a Roanoke insurance man and experienced dove hunter.

"Water hole pass shooting is the ultimate in dove hunting," he says. "It is a real gentleman's sport."

Bob made the comment to me one day last season while poised under a lone tree a short shot away from a small moss-green cow pond. The barrels of his little .410 double were warm and several fat doves lay about his feet. The dove season was three weeks removed from the easy pickings of opening day. Many hunters,

GENTLEMAN

By BILL COCHRAN
Roanoke



With a water retriever, such as this one of Red Dean's, no doves shot over the pond are lost.



VIRGINIA WILDLIFE

N'S SPORT



On the watch for small pond doves as sun dips down to treetop level.



myself included, were discovering it to be increasingly difficult to bag these birds over grain fields. Sharpened by days of shooting, they were sizzling across the fields as though jet assisted, and at times they appeared to be flying high enough to require oxygen masks. Where hunters were bagging limits a couple weeks back, now it was difficult to reap two or three birds.

The watering hole Bob and I watched, and many others, however, continued to provide outstanding shooting. The bonus sport was a real eye-opener for me. I'd hunted doves over ponds before, yet for the most part ponds still meant fishing to me more than they did hunting. No more. Now they mean doves.



Bob Cromer, a water hole shooting advocate, takes doves with .410 double.

A good watering hole will concentrate doves, and most of all it will bring them low for a decent shot. All you need to do is be able to hit them, which I've never found easy, watering hole or not.

Unfortunately, not all ponds mean instant dove shooting. Doves can be choosy about the watering holes they use. One may look perfectly good to you, but doves will shy away from it as if it were stocked with alligators. I've learned not to argue. It's better to move on and search out another one.

What do doves look for in a watering hole? I guess only a dove knows for certain, but it appears to me that they prefer ponds not too distant from their feeding grounds. It's my guess that the better holes are within a couple of miles of a freshly harvested corn or cane field, or some other food source.

Even more important, probably, is the makeup of the pond. Unlike quail, grouse and most other upland game birds, doves aren't exactly proficient walkers. They waddle about like a fat man on stubby legs. It's not often you flush them out of brush or tall, thick grass. They like their feet on firm, clear ground, and this is a good clue to remember when searching for a watering pond. One with fairly open and hard banks is normally going to be more attractive than a swampy pond or a

pond where the banks have grown thick with high grass. Gentle, shallow water along the edges also is an asset.

Fortunately, this is a description fairly common to most livestock ponds. The animals, in most instances, will have trampled out the waterfront grass, offering doves footing over firm dirt or rocks, except during times of heavy rainfall, when it is likely to be muddy.

Often a cattle pond will offer a hunter little cover. So what does he do? He positions himself along the nearest fence row, tree line or single tree.

"Look for the biggest dead tree around and sit under it," advises Bob Cromer. That may not be sound advice for weathering a thunderstorm, but for water hole hunting it can't be topped. "They'll land in it every time," adds Bob.

That's how Charles Foster bagged most of his doves. The pond he worked was about 100 yards down a hill from a little knoll. Stretching across the knoll was a wire fence and projecting up from it was a lone tree

makes a perfect retrieve. It adds considerably to the fun, and no birds are wasted.

Finding a good dove watering hole requires some advance scouting. Like Charles did, often you can locate a hole by driving rural roads and observing dove flights. Normally this is best done in the afternoon, the last couple hours before sunset when the birds begin to bunch up and head for water after a period of feeding. This is the best time for hunting a watering hole, too.

You can do some scouting in the morning hours, though, simply by searching for dove tracks and feathers around ponds. Naturally you need to secure permission to hunt a pond, and of course you'll be careful of any livestock in the area and pick up the empty shells you eject.

I wear camouflaged clothing while dove hunting. Normally, this is of extra importance when water hole shooting, because natural cover often can be scarce. I like to use a little hunting stool to hunker on which makes for comfort and quick shots. The stool contains



(Left) Red Dean and his American water spaniel watch sky for incoming doves. (Right) Small folding stool is ideal for comfort and quick shots.

with dead and gnarled limbs reaching outward.

The doves, thirsty, hot and with full crops, would sweep down for the tree, before drifting on to the pond to sip water. Charles could bang away at them with his 12 gauge.

The sportsman who shoots around a farm pond very much is going to drop some birds into the water. Fortunately, they float. I have a hunting friend, Red Dean, who has a great solution. It's a frisky, chocolate colored, friendly bundle of fur called an American water spaniel. Little known in these parts, the American is an accomplished land and water retriever. In addition, the breed makes a fine pet, being a lovable little dog, sweet-tempered, wonderful around kids and easy to train. Whenever Red drops a dove in a pond, which he often tries to do on purpose, his American jumps in and

a handy pocket for carrying shells and birds. In dove hunting, it always pays to carry plenty of shells. I use No. 7½.

A major advantage of water hole shooting is that only one or two sportsmen can make a hunt, where it often takes a dozen or more to properly cover a grain field in a way to keep the birds moving before the guns. A single hunter would be lost trying to cover a large corn field, for example, but he can have doves all around him as a lone gunner at a watering hole.

I've seen some ponds that provided shooting all afternoon while others are good only the last couple hours before sunset. Sometimes, my friends and I will hunt the fields, then move down to a pond in the late afternoon for some bonus sport. It's a great way to heat up the barrel of your shotgun in the cool of the afternoon.

A "Wonder" Drug

By HENRY S. MOSBY, Ph.D.
*Div. of Forestry and Wildlife Sciences
V.P.I. & S.U., Blacksburg*



From Deer?

A "madstone" or "egg" from the rumen of a white-tailed deer. The surfaces of these calculi are quite smooth, with a pattern like a mottled egg shell.

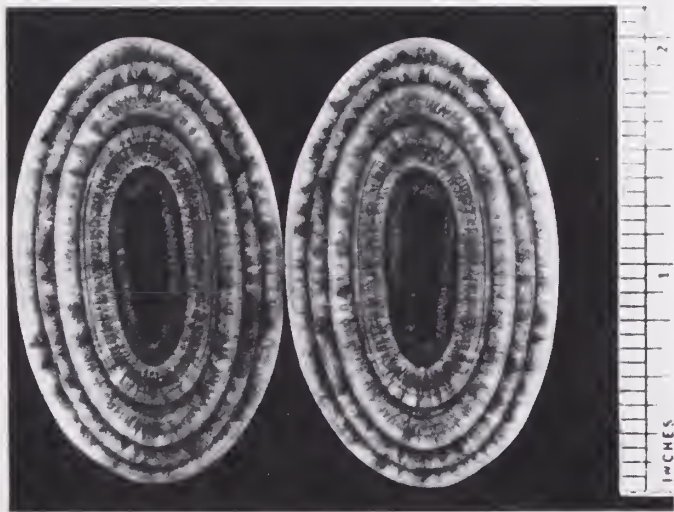
TODAY, everyone is aware of many "wonder drugs" available to the medical profession for use in treating a wide array of human diseases and disorders. The development of antibiotics and sulphur drugs about the period of World War II did much to convince the general public that the medical profession had, or soon would develop, some type of drug that would allay or cure almost any malady to which humans are subject.

According to folklore of Asia, Europe, and both continents in the New World, such a wonder drug has been in existence for thousands of years in the form of bezoars found in the intestinal tract of animals. These bezoars—a Persian term signifying antidote to poison—are of two types: hair-plant balls and stone-like concretions or madstones. The latter type of bezoar—the water-worn appearing, rock-like "eggs"—are encountered infrequently in the "stomachs" of ruminants such as deer, cattle, South American vicuna and even leaf-eating monkeys. These stone-like concretions are highly prized for the supposed therapeutic value ascribed to them. Deer "eggs" or madstones have been found in the rumen of deer from Virginia, Georgia, Michigan, and California. Apparently these calculi are

A "hair ball" from the rumen of a cow, cut in half to show the fibrous structure.



A deer "madstone" cut in half to show the central nucleus, which in this case was a quartzite pebble.



infrequently formed in the rumen of deer. In addition, not many persons are likely to find them for few people poke around within the smelly rumen unless they, like wildlife biologists, are concerned with identifying the pulverized foods eaten by deer.

Bezoars are reputed to neutralize poisons which have been placed in either food or drink, to draw out the venom of poisonous snakes and reptiles, to be successful in the treatment of the bites of "mad" or rabid animals, and, in some places, the bezoars are pulverized and taken internally as a panacea for internal parasites, jaundice, cancer, plague, and melancholy. So, this wonder drug is reputed in some circles to cure almost anything except fallen ancestors!

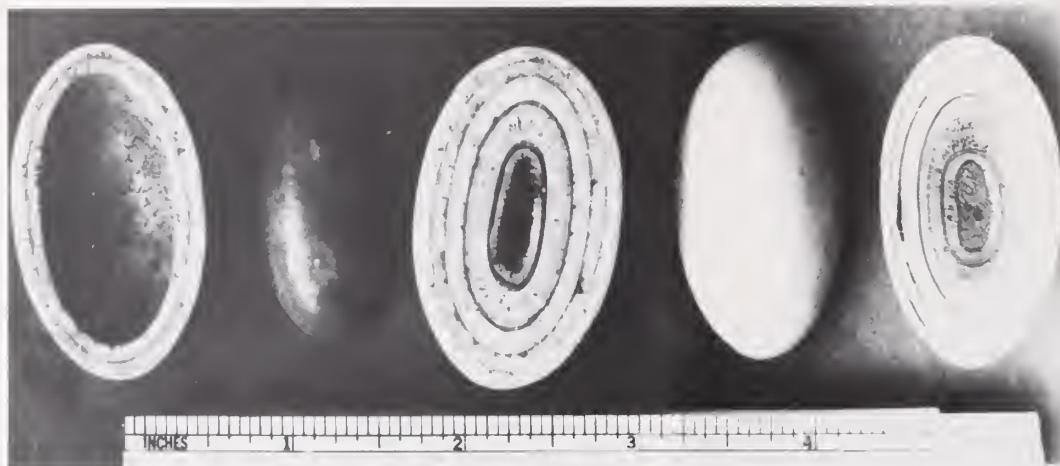
The hair-ball type of bezoar is composed of hair or other fibrous materials, usually accumulated around some foreign object as a nail or stone. The other

change a goat for a bezoar to be used in their practice of "medicine." Even today, madstones are used in our back country for the treatment of the bites of rabid animals and poisonous snakes and, as such, are treasured objects.

Mr. James F. Tyler, of Leesburg, Virginia, and his family have had experience with madstones for a number of years. Learning of my interest in these objects, Mr. Tyler wrote:

"Our family has, since the late 1700's, possessed a number of 'mad stones' which were brought from India by my fourth great grandfather, Captain James Smith sailing out of Dumfries, Virginia. There is a detailed record of hundreds of applications of these stones to local people bitten by snakes and so-called rabid animals. To our family's knowledge the application of the 'mad stone' was always successful without exception.

"My father, whom I considered a highly intelligent



"Madstones" cut lengthwise to show inner structure. Each of the "rings" fits snugly into a series of concentric shell-like structures. The mineral which makes up these calculi is brushite. The method by which they are formed in the rumen of deer is unknown. There is no evidence indicating that these "madstones" cause any pathological problems for the deer that carry them.

type of bezoar or madstone is composed of minerals, normally laid down in layers around a central nucleus such as a stone, pecan, or similar foreign object. The formation of the hair or plant "balls" is readily visualized as a result of the accumulation of fibrous material around a nucleus by the normal "churning" or peristaltic movements of the stomach. However, the process by which minerals are deposited in layers into an egg-shaped object is unexplained. Both of these concretions, be they of hair-plant or mineral origin, are smooth surfaced, presumably as a result of being continuously moved about within the digestive tract. Generally, the hair-plant bezoars are ball-shaped whereas the mineralized or stone bezoars are egg-shaped. The stone-like bezoars which we have examined from deer are composed largely of brushite ($\text{CaHPO}_4 \cdot 2 \text{H}_2\text{O}$) laid down in light and dark concentric layers.

Bezoar have been highly prized for their supposed medical value for centuries. Jeweled bezoars were so highly esteemed that they were considered suitable objects to be presented to kings and emperors. In South America, the Indian medicine women gladly will ex-

person, and a number of local physicians all agree that there is some scientific explanation to the remarkable curative powers of the stone. It hasn't been used for years since better methods have been developed, but in my childhood I saw one applied to the bite of a rattlesnake and the stone stuck as though it were held by some monstrous magnetic force until the swelling subsided. Apparently, there is some capillary action created by the stone which filters the poison from the bloodstream. It was applied by removing the epidermis with a sharp instrument and therefore allowing the stone to come in closer contact with the dermis.

"... It would be most interesting if someone really could explain why these stones stick so tightly and why no one has died of a snake bite after being treated with the 'mad stone' . . ."

Modern medical science ascribes no pharmaceutical virtues to either type of bezoar, whether applied externally or taken internally. Even so, many persons today hold that these calculi do have value and that they truly are wonder drugs useful in curing many human maladies.

“SAY ‘carp’ to many fishermen, and they’ll turn up their noses and walk away. But, these hardy fish are gallant fighters and make mighty good eating besides. They battle as well or better than many of the more sought-after game fish. When properly prepared, they taste a good deal better than some so-called game species. Still, because of his hardiness, his general disdain for artificial lures, and his ability to out-compete game fishes, the carp ranks low in the angler’s preferred list. Even so, some folks will take the carp over any of his more esteemed cousins.”

So says a recently published brochure issued by the Nebraska Game and Parks Commission, summing up a year’s study of the carp in that state.

the wild intentionally and some escaped the confinement of their rearing ponds, but no matter how they got there their proliferation in American waters was astounding.

The carp is prolific, grows to huge size, and is tolerant enough of quality variations in his aquatic environment to succeed where many other species fail. As a game fish he can be shy and spooky, unless proper fishing techniques are employed, and on the end of a line he is a swift, strong, dogged fighter. Still, most sportsmen overlook his presence, and his tribe remains an under-utilized food and recreational resource—so much so that in most waters he is now regarded as “undesirable” from the fishery management point of view. But

CARP



A WASTED RESOURCE

Commission photo by Kesteloo

And the same can be said about carp, and most fishermen, in Virginia. Only a few anglers appreciate and exploit the merits of the carp as a game and food fish, and, unlike bass and trout fishermen for example, carp fishermen as a group do not devote a great deal of missionary zeal to converting others to their way of thinking. Just why carp fishing has never really “caught on” as it should have, leaving the carp populations of our streams and many of our impoundments a truly overlooked and under-utilized resource, is somewhat of a mystery.

The carp has long been a prized food fish in Asia and Europe, and that is precisely why the species was brought to America in the first place. For centuries it has been one of the leading food fishes of the world, if not indeed *the* leading freshwater food species. Native to Asia, they were brought to Germany about the Thirteenth Century and were later reared in ponds throughout much of Europe, where they were prepared by the finest chefs for the tables of the noblest of diners. As a food fish of highest repute, they were brought to America in the 1870’s, where some were planted in

he is there, and is going to stay!

The fact is that in some waters, such as the Shenandoah River, it is very likely that lack of fishing pressure directed toward the carp contributes considerably to the fish’s nuisance status.

The carp’s fast growth and eventual huge size, prolific breeding and resultant large populations, and omnivorous feeding habits, make him a serious competitor for other lesser species for available nutrients. (Since nothing in the stream can prey upon a mature carp, many of the nutrients he removes from the ecosystem’s food chain stay removed for a long time, perhaps as long as twenty years.) Furthermore, the bottom-rooting of feeding carp destroys vegetation and adds to the water’s turbidity, much to the detriment of most other fish species, and the bigger the carp, the more vigorously he roots and the more silt he stirs up. It is frequently noted that poor fishing can result from *too much* fishing pressure on the large predators, such as bass, which brings about a lack of balance between fish species and size classes. It just might be that in some streams (again, such as the Shenandoah River) a bet-

ter balance might be achieved, and better all around fishing result, from a *massive increase* in angling pressure on the *large non-predators*, i.e., the carp!

One likely reason why most fishermen ignore the thrills of carp fishing is that the species has failed to maintain its reputation as a fine food fish. (Most sportsmen are not "meat" fishermen, but most do like to feel what they catch is at least edible.) Well, the carp is just as fine a food fish as it ever was, but its *reputation* has suffered from one of the very character-



Commission photo by Kesteloo

The carp is a strong, swift, dogged fighter, and when he first sights the fisherman it usually triggers another run.

istics that has made it such a successful immigrant in American waters—its tolerance of low water quality. *All* fish, from the most highly prized to the lowliest, do tend to taste somewhat like the environment in which they live. To put it another way, the odors and tastes of impurities in the water, whether they be decaying algae, industrial effluents, or petroleum products, do show up in the flesh of the fish that live in those waters. This is true of bass as well as carp, but because of the carp's tolerance for rather low water quality they are sometimes taken from water in which no self-respecting bass would be caught, and it should be no surprise if the palatability of the carp from such an environment is not up to par. A bass would not have tasted any better, if he had been able to survive there in the first place. Taken from the cool, clean water of a good bass stream, a properly prepared carp is just as good as his reputation elsewhere in the world says he should be.

We will get around to the business of properly pre-

paring a carp in a little bit, but first let's catch one.

Some fishermen fail to get enthused about carp fishing because it is well known that a carp will not take an artificial lure. This is "well known" to be sure, but it is not entirely true. Carp will take artificial lures sometimes, lures such as *very small* spinners or jigs worked along or very close to the bottom. But nobody tries very hard to catch them that way, and this might be a tip off. It was not so many years ago that nobody thought that shad and herring would take artificial lures. Somebody experimented, and developed the right gear and techniques, and shad and herring became game fish of high repute. The fish didn't change. The fishermen simply learned what lures to offer, and where, when, and how to offer them. Could the same thing happen with carp? Nobody's tried very hard to find out.

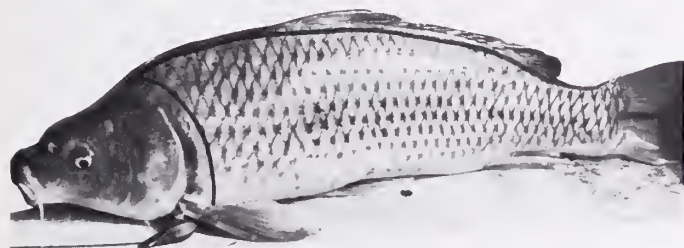
But so far as we know now, the best way to catch carp is with one of a variety of baits impaled upon very small hooks, attached to a line or leader that is as nearly invisible as possible, fished very quietly on the bottom, in a spot where carp are feeding. The carp is likely to "spook" at the sight of a heavy line, or at the "feel" of any movement of the line transmitted from the hands of a fidgety fisherman. Since the carp's mouth is relatively small, No. 6 or No. 8 hooks, or No. 12 treble hooks, are plenty big. Sinkers should be the smallest needed to provide casting weight and keep the bait on the bottom. Bobbers have no place in carp fishing as it is usually practiced.

Carp will take worms, but corn kernels and various concoctions of dough are the favorite baits of most successful carp fishermen. Some prefer kernels of fresh, green corn when it is available, but others find canned whole kernel corn just as good. Dry corn is too brittle to be placed on a hook properly, but it is effective for pre-baiting a hole that is to be fished within the next twenty-four hours. There are many "secret" recipes for carp dough, but one containing canned corn probably is just as good as any other. Just boil the juice from a can of corn, crush the corn kernels and add to the boiling juice, stir in enough corn meal to make a solid but moist mass, and knead in enough flour to give the dough the desired consistency. A little experience will tell the fisherman when the dough is right for staying on the hook. (This varies with water temperature. Cold water hardens dough, and warm water softens it. Take along a plastic bag with a little flour, and make necessary adjustments by kneading in additional flour or water as conditions dictate.)

Carp do not strike, but bite rather gently, so set the hook at the first feel of a bite or at any noticeable movement of the line. Then look out. When the carp feels the hook you may think you have a lassoed steer on the end of your line.

When you are ready to dress your carp, don't scale him—skin him! Use a sharp knife to make a cut

through the skin around the entire fish just behind his gills. Make another cut along the back, from the first cut all the way to the tail. Cut deeply on both sides of dorsal and anal fins. Use pliers to pull out the fins, and to remove the skin starting where the circular and lengthwise cuts join, just behind the head. Remove the dark, red meat along each side by cutting out a wide, shallow "V", because this can impart a strong flavor. Remove the head, gut the fish, and wash out all traces of blood.

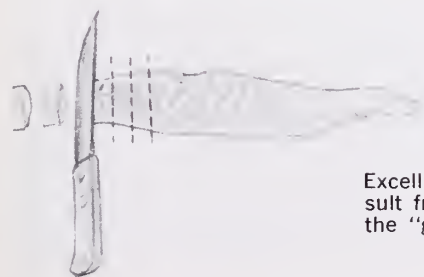


Don't scale a carp—skin it. Cut through skin as indicated by black lines, above; grasp skin with pliers where circular cut and lengthwise cut meet behind the head; and peel off skin by pulling toward tail.

Carp may be cooked whole, halved, or filleted, but in any case the flesh should be scored by making a series of deep knife cuts two-thirds of the way through the meat, across the grain (at right angles to the backbone), and one-eighth to one-quarter of an inch apart. This virtually eliminates the problem of tiny, "free floating" bones, and allows cooking heat, cooking fat, and seasoning to penetrate deeply into the flesh. A highly recommended procedure is to take a fillet from each side of a properly cleaned and butchered carp, slice the fillets into fresh "fish sticks" not over $\frac{1}{2}$ inch thick by cutting across the grain of the muscles, dip the "sticks" in batter, and deep fry at 375° to 400° F.



Score flesh deeply, whether it is half fish, whole fish, or fillet.



Excellent fresh fish sticks result from slicing fillets across the "grain" of the meat.

Sketches by Susan A. Farrar

In
Nature's
Garden

BUTTERFLY WEED AND THE MILKWEED FAMILY

By ELIZABETH MURRAY
Charlottesville

Illustrated by Lucile Walton

MILKWEED flowers have a remarkable structure unique to this family, the *Asclepiadaceae*. The five petals are turned sharply downwards, hiding five small sepals. Above the petals rises the most conspicuous part of the flower called the *corona*. This is not formed from the petals but from extensions of the stamens called *hoods*. The five stamens are united into a tube which encloses the two ovaries and styles and actually adheres to the single broad stigma. From within each hood arises a curved horn, the point directed towards the stigma. The primary function of the hood is the secretion of nectar for the attraction of insect pollinators. These are chiefly members of the Hymenoptera, the group which includes the bees, ants and wasps. The insects carry from flower to flower the pollen which (as in orchids) is gathered into pollen masses or *pollinia*. Each pair of pollinia is yoked together with two strands joined by a cleft triangular gland. Insects alighting on the flower get their feet stuck in the cleft. If the insect is large enough, it will pull out the whole structure and fly off with the two attached masses of pollen dangling. Many insects cannot exert enough pull and die in the 'trap'.

Asclepias is the major genus of the family and in the eastern United States about 25 species can be recognized. The name milkweed refers to the milky juice which is secreted by all species except butterfly weed. Another common name is silkweed, which refers to the tuft of long silky hairs attached to the seeds in the seed pods. These help the *plant* to disperse its seed, and during the war they helped us too, by serving as a substitute for kapok. They have also been used for stuffing many a draughty hole in many a country home. Fibers from the stems, particularly of *Asclepias syriaca*, the common milkweed, and *Asclepias incarnata*, the swamp milkweed, are also useful for caulking, although they tend to be a bit brittle.

The scientific name of the genus comes from the Greek Aesculapius, the god of medicine and the son of Apollo and Coronis. The plants were called after him because of their supposed medicinal qualities. The seed down of milkweed pods was used for dressing wounds, and a preparation of butterfly weed was considered effective in the treatment of pleurisy; hence another of



Butterfly weed.

Butterfly Weed

(Continued from page 21)

its common names, pleurisy-root.

Many parts of the milkweed plant are edible, but caution is advised, since some parts are poisonous. All raw milkweed shoots are poisonous, and in butterfly weed the roots also are toxic. However, when cooked, the young shoots are said to resemble asparagus. The common milkweed is the best species for eating. Shoots should be boiled twice, the first lot of water drawing out the bitter compound of the milky juice. Indians cooked the flower clusters while still in bud and ate them as greens, while green immature seed pods were also cooked and eaten with meat, rather like okra. If the pods are gathered before they get too large, the seeds and silk will cook quite edibly. In the eighteenth century, a Swedish traveler and pupil of Linnaeus called Pehr Kalm, writing about the French Canadians, said that they gathered the flowers very early in the morning when the dew was still on them and boiled them up to obtain "a good brown sugar." If milkweed sap is allowed to stand, the bitter taste disappears, and it can be used as chewing gum. I feel obliged to confess that although I enjoy some wild food, I have not yet ex-

perimented with milkweed, and all this information is acquired second-hand.

Asclepias tuberosa, or butterfly weed, is the most highly variable of all the milkweeds and is frequently divided up into several subspecies across its range. It is a brilliantly showy plant, standing one to three feet high with leafy, branching stems. Inflorescences containing numerous flowers are arranged in umbels on each stalk. The leaves are roughly hairy, long, narrow and pointed, sometimes with a short leaf stalk, sometimes stalkless and slightly indented at the base.

The color of butterfly weed is also very variable, ranging from bright yellow through various shades of yellowish-orange and orange to quite a bright reddish-orange. The late Robert Woodson, an excellent botanist from St. Louis and a great lover of butterfly weed, conducted a long series of observations on the different colors of the chief subspecies *Asclepias tuberosa interior*. He was a great gardener and successfully transplanted all the color varieties he could find into his own home yard in Missouri.

The color of butterfly weed flowers is produced by a yellow carotenoid pigment and a red anthocyanin pigment. The final shade of each flower depends on a variable amount of anthocyanin superimposed on a yellow background produced by a rather constant amount of carotenoid. Dr. Woodson surveyed butterfly weed colors throughout the natural range of the subspecies in the United States, from Ontario west to Minnesota, and from Virginia southwest to the Rocky Mountains. In the main central populations of the States, Missouri, Illinois, Iowa and Kansas, the red-orange color predominates, and this seems to be associated with bigger, healthier plants which have larger inflorescences per stem. Radiating out from this in all directions, there is a higher proportion of yellower, smaller plants. In some places this change occurs far more sharply than in others. Some of the widely separated populations show a great deal of local diversity. Woodson suggested that there was a complex of characters associated with the red-orange color which produced a superior plant at the center of the range, around which there was incomplete diffusion in all directions. In some of the partly isolated colonies, natural selection was operating on small numbers of plants in many different ways to produce some of the striking local variations.

For those of us who cannot always be rushing off to Missouri, there are some very fine stands of butterfly weed of many shades to be seen in Virginia. The plants like dry, open soil, and are quite a frequent sight along roadsides and in old fields, maybe as early as May, but certainly from July through September. Once the butterfly weed is fully out, we can start to look for the familiar roadside sights of late summer, Joe-pye-weed, Ironweed and those other tall showy members of the daisy family, and so, almost without realizing it, the fall will be upon us.

Know Your WARDENS

Text and Photos by F. N. SATTERLEE
Information Officer

W. SHELTON ROUNTREE *Supervising Warden, Hampton Roads District*

Nansemond County, now the City of Nansemond, was the birthplace of W. Shelton Rountree. Parts of his early childhood were spent in North Carolina and he attended schools in both that state and in Virginia.

Shelton enlisted in the U. S. Army in 1935 and served for three years in the Coast Artillery. During that period he became interested in law enforcement, and, following his military service he joined the Suffolk Police Department. While with that organization he was selected to attend the FBI National Police Academy.

In September of 1946 he joined the Game Commission as a warden and was assigned to duty in Nansemond County. This enabled him to combine his interest in law enforcement with his love of conservation and wildlife while working with the public. For Shelton this was the perfect combination.

During November of 1954 he lost his left arm as the result of a gunshot wound suffered while on patrol in the Dismal Swamp. In spite of this loss his devotion to his job never lessened and in June of 1966 he was promoted to his present position. In that capacity he is responsible for the activities of the 18 wardens who operate in the eight counties and in all of the major cities in the Tidewater area of the Commonwealth.

He is married to the former Annie Moody, and she and Shelton make their home in Suffolk near a married daughter and one grandchild.



J. J. WESTBROOK *Henrico County Game Warden*

Joe Westbrook was born in Surry County, Virginia, where he grew up on the family farm along with peanuts, corn and cotton. He began his schooling in a one-room building which bore the "out-doorzy" and perhaps prophetic name of Otter Dam.

As a teenager he came to Henrico County and, following high school, worked for the duPont Company in the Rayon Plant. He was hired by the county of Henrico to be the Chief Forest Fire Warden and a Special Policeman. In 1946 he became affiliated with the Virginia Game Commission as a Special Warden for Henrico. This was in addition to his other two jobs. He served in this unique position until 1952, when he became a full-time warden for the Commission and was assigned to duty in Henrico County.

Joe's main interest is in working with people, with wildlife, and with things outdoors. He is especially interested in the safety programs which serve to educate both adults and youth alike in boating and hunting safety. He believes that these activities should begin with the participants being aware of the "safe way" to be sportsmen.

He and his wife, the former Constance Chase, live on Route 1 in Sandston. All three of their children are married and Joe and Constance have been grandparents nine times.





Edited by HARRY GILLAM

New State Record Muskie



Happy angler Joel Vedder, Jr., of Gretna, on the right, was fishing a spinner when this monster muskellunge hit in Leesville Lake. The fish weighed 30 pounds and measured 44 inches in length. Mack Dalton, on the left, was along on the eventful fishing trip.

Jeeps and the Environment

American Motors Corporation has published a booklet, *Your Land, Your Jeep and You*, designed to promote awareness among off-road drivers of the need for care and protection of our environment.

Author Ed Zern, internationally-known outdoor writer and conservationist, observes, "Our land is often fragile and easily scarred, in ways that might be long-lasting or permanent.

If enough drivers—not just of Jeep and other 4WD vehicles but of trail bikes, dune buggies, ATV's and snowmobiles—ignore the rules or don't use common sense where no rules exist, the result may be the total banning of all such vehicles in large areas of the United States." Insuring a future for off-road vehicles will take the concerted effort of all drivers.

Copies of the booklet are available without charge from American Motors Corporation, Department JB, Detroit, Michigan 48232.

Game Commission to Purchase Charles City Hunt Area

The Commission of Game and Inland Fisheries is in the process of purchasing a 1,497 acre tract on Morris Creek in Charles City County just north of the Ronte 5 bridge across the Chickahominy River. The area is al-

most entirely wooded with extensive marshes bordering the creek and the Chickahominy River. It should be an excellent deer area, and about 20 public blinds are planned on the surrounding marshes. Waterfowl hunting rights had already been leased to private individuals for the 1972 season, but the Commission hopes to have the area open for upland hunting this year.

Title searches and boundary checks are now in progress and, if all are in order, the Commission should have title to the area by early fall. Timber rights on the largest tract have been reserved for 3 years and logging will continue during that period. Immediate plans call for improvements to roads and development of at least two parking areas. Small openings will eventually be created and maintained to increase diversity of game. In addition to deer and ducks, hunters should find some squirrels, quail, rabbits and doves. Duck blinds, when developed, will probably have to be allocated by drawing due to expected high demand from the Richmond and Peninsula urban centers.

Richmond County Record?



John B. Lewis of New Jersey bagged what he thinks is a record whitetail for Richmond County. The well matched rack scored 176 and 10/16 during an unofficial measurement and the Game Commission has no larger rack from Richmond County in its records.

New Game and Fish Law Folders at License Agents

Hunting and fishing license agencies around the state and most sporting goods stores have been supplied with copies of the new "Summary of Virginia Game Laws" and "Summary of Virginia Fish Laws." The informational brochures are printed in full color in a format similar to that which proved popular last year. The front of the game law folder features a squirrel hunting scene, and a landlocked striped bass graces the cover of the new fishing regulations.

The removal of creel limits on pan-fish allowed a great deal of simplification in the fishing regulations. Also included in this year's fish regulation folder were the May trout stream closures which had to be omitted last year because of space limitations. The uniform small game season permitted some simplification of the listing of small game and squirrel seasons in the new hunting regulation folder. Copies of the new brochures may be picked up locally from license agents, game wardens, sporting goods stores, or from the Game Commission office at 4010 W. Broad Street in Richmond.

Booklet of Tips For New Campers Available

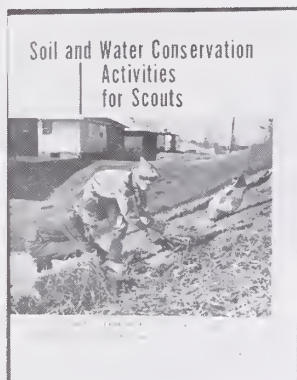
A new booklet, "Tips For New Campers," offers a lot of useful information for the beginning camper or those with limited experience.

Available free from the North American Family Campers Association, the booklet contains comparisons of different types of camping equipment including tents, trailers, truck campers and motor homes. Also included are safety and convenience check lists for your camping rig, suggestions on how to buy your camping shelter.

You can get your copy by sending a self-addressed #10 envelope (the long kind) with 8¢ postage applied, to TIPS, NAFCA, Box 552, Newburyport, Mass. 01950.



Edited by ANN PILCHER



The USDA Soil Conservation Service's latest Scout activities booklet contains 30 pages and gives instructions for 22 activities, including such things as making soil artificially, comparison of soils by growing plants in them, how organic matter helps soil structure, how much sediment a stream carries, how capillary water moves through soil, how cover affects soil loss, tree planting, uses of wood, and making a conservation corner. The book, published last November, may be ordered as stock number 0100-1427 at 25¢ each from the Superintendent of Documents, US Government Printing Office, Washington, D. C. 20402.

Outdoor Classroom For First-hand Study of Nature

In June the Commission of Game and Inland Fisheries provided acreage on White Oak Mountain to be used as an outdoor classroom through an agreement signed by Dr. Allan A. Hoffman, Game Commission member from Danville, and T. Anthony Polard, representing Pittsylvania County schools. The land will be managed by the county schools during the time the trail is open to the public, March 1-November 15. (The facility will be closed during hunting season for safety purposes.)

William Hathaway, appointed temporary Assistant Planetarium director by the school board, was chosen to

make the trail and prepare it for opening this summer. According to John Calibrisi, acting director of the Planetarium and Science Laboratory, the nature trail will be divided into three sections, or loops. Each of the loops will be a separate outdoor study classroom for first-grade through college-level students. The biology loop includes a five-acre pond where students will study frogs and certain types of reptiles. Higher forms of life will also be observed in this section. Rock formations can be studied in the geology loop, which runs to a section of the Bannister River. The botany loop will include non-native trees as well as different types of trees and other vegetation that are native to the area. The trail includes a spring, and what could possibly be an artesian well discovered by School Superintendent Combs.

Forestry Camp Held Again at Holiday Lake

Eighty-five boys attended the 27th annual boys forestry camp held June 19-June 24 at Holiday Lake located on the Buckingham-Appomattox State Forest. The 14-16 year olds had received camp scholarships for their activity and interest shown in sound forest conservation practices. They were tested and graded on subjects taught during the camp period, which included forest fire control, timber harvesting, wood preservation, timber measuring and marketing, forest management, tree identification, forest insects and diseases, and wildlife management. Tom Stanley of Cumberland County was judged best camper—on the basis of leadership, initiative, interest, and grades—Roger O. Slusher III of Floyd County, first runner-up, and Martin Dittler of Lancaster, second runner-up.

Professional foresters from the pulp and paper industry and the Virginia Division of Forestry, along with a Game Commission biologist, handled

the instruction at camp. Holiday Lake Camp is financed by Virginia pulp-wood-using industries, sponsored by the Southern Forest Institute, and managed by the Virginia Division of Forestry.

Two Hundred Trees

The National Society, Children of the American Revolution has planned a long-range conservation project to commemorate our nation's approaching 200th anniversary. "Two Hundred Trees," as the project is titled, will last until the society's annual convention in 1976, by which time over 165,000 trees will have been planted.

National Chairman of Conservation John Livingston, of Old Greenwich, Connecticut, has requested that each of the 822 local societies across the country plant at least 200 trees—a tree for each year that we have been a nation. According to Chairman Livingston, many of the 39 local societies in Virginia have already located sites and begun planting in cooperation with state foresters, other conservation officials, and local experts so that they may meet the goal for this state, 7,800 trees planted by 1976.

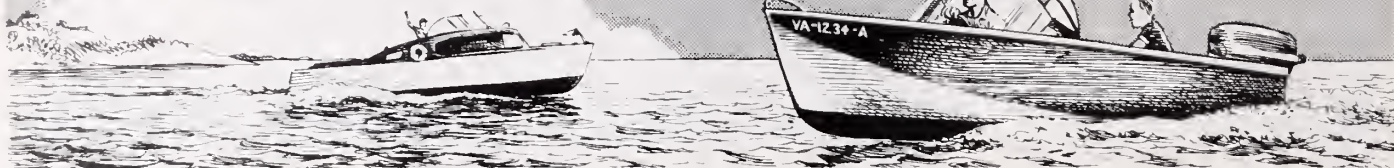
Rapalla Lured Citation Bass

Six-year-old Dennis Holloway of Jarratt is one happy youngster after catching a four-pound smallmouth bass in the Nottoway River near the northwest corner of Greensville County. Dennis used a Rapalla lure to land his prize catch.

Courtesy Philip H. Dale



ON THE WATERFRONT



Edited by JIM KERRICK

Suggestions for Safety

1. Gasoline vapors are explosive and, being heavier than air, will settle in the lower parts of a boat. All doors, hatches, and ports should be closed while fueling, galley fires and pilot lights extinguished, smoking strictly prohibited, and the filling nozzle kept in contact with the fill pipe to prevent static spark. Avoid spilling. Do not use gasoline stoves, heaters, or lights on board. Whenever possible, portable tanks should be fueled out of the boat.

2. After fueling, thoroughly ventilate all compartments and check the machinery and fuel tank areas for fumes before attempting to start the motor. Remember that the electrical ignition and starting system could supply the ignition to any accumulation of explosive vapors. Take time to be safe. Keep fuel lines tight and bilges always clean. Check your fuel supply system; see that the tanks are vented outboard, that the fill pipes are located outboard of coaming and extend to near the bottom of the tank. Have an adequate filter on the fuel line.

3. Do not overload or improperly load your boat. Maintain adequate freeboard at all times; consider the sea conditions, the duration of the trip, the predicted weather, and the experience of the operator. Do not permit persons to ride on parts of the boat not designed for such use. Bow riding and seat back or gunwale riding can be especially hazardous.

4. Keep an alert lookout. Serious accidents have resulted from failure in this respect.

5. Be especially careful when operating in any area where swimmers might be. They are often difficult to see.

6. Watch your wake. It might capsize a small craft; it can damage boats or property along the shore. You are responsible. Pass through anchorages only at minimum speed.

7. Obey the Rules of the Road. Neglect of this is the greatest single cause of collision.

8. Always have children wear life-saving devices. Always check those intended for young children for fit and performance in the water on each individual child. Never hesitate to have "all hands" wear lifesaving devices whenever circumstances cause the slightest doubt of safety.

9. Know your fuel tank capacity and cruising radius. If necessary to carry additional gasoline, do so only in proper containers and take special precautions to prevent accumulation of such vapor in confined spaces.

10. If you ever capsize, remember that if the boat continues to float it is usually best to remain with it. You are more easily located by a search plane or boat.

11. Know the meaning of the buoys. Never moor to one—it is a federal offense.

12. Consider what action you would take under various emergency conditions—man overboard, fog fire, a stove-in plank or other bad leak, motor breakdown, bad storm, collision.

13. Have an adequate anchor and sufficient line to assure good holding in a blow (at least six times depth of water).

14. Boat hooks are not required equipment but they are valuable when mooring or when needed to retrieve pets, preservers (and people) "over the side."

15. Know the various distress signals. A recognized distress signal used on small boats is to slowly and repeatedly raise and lower the arms outstretched to each side.

16. Water ski only when you are well clear of all other boats, bathers, and obstructions and there are two persons in the boat to maintain a proper lookout.

17. Falls are the greatest cause of injury both afloat and ashore. Eliminate

tripping hazards where possible, make conspicuous those which must remain, have adequate grab rails, and require proper footwear to be used on board.

18. Always instruct at least one person on board in the rudiments of boat handling in case you are disabled—or fall overboard.

19. Before departing on a boat trip, you should advise a responsible friend or relative about where you intend to cruise. Be sure that the person has a good description of your boat. Keep him advised of any changes in your cruise plans. By doing these things, your friend or relative will be able to tell the Coast Guard where to search for you and what type of boat to look for if you fail to return. Be sure to advise the same person when you arrive so as to prevent any false alarms about your safety.

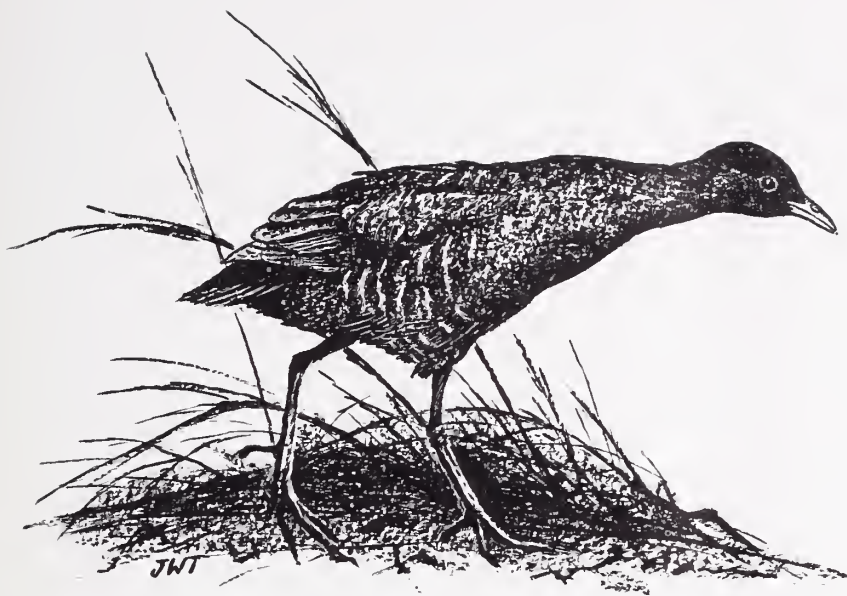
20. Do not test fire extinguishers by squirting small amounts of the agent. The extinguisher might not work when needed. Always follow approved instructions in checking fire extinguishers.

21. A special flag hoist (red flag with white diagonal) flown from boat to buoy means skin-diving operations. Approach area with caution and stay clear at least 25 yards.

--Department of Transportation
United States Coast Guard

Boating Course Offered

A 12 lesson "safe boating" course, sponsored by Flotilla 65 of the U. S. Coast Guard Auxiliary for all persons interested, begins September 13 in the cafeteria of Warwick High School, Newport News. A nominal fee for text material will be the only charge made. Additional information may be obtained from Al Miller, the flotilla's public education officer, Newport News (596-4940).



Bird
of
the
Month

The Black Rail

By JOHN W. TAYLOR
Edgewater, Maryland

THE black rail has revealed itself slowly, grudgingly to the human race. All early accounts of the bird describe it as exceptionally rare and elusive, but gradually, as its ecology became better understood, it was found to be fairly common in certain habitats. Too, its secretive, skulking ways make it seem more shy than it really is.

In fact, if you know just where to look, and what to listen for, the black rail is not at all a bird of mystery. Its favored living quarters are short-grass salt meadows (*Spartina patens* and *Distichlis spicata*) which cover extensive tracts on the Eastern Shore peninsula and (somewhat less so) on the Northern Neck. It is most active at night, after 10 p.m., when they begin calling. The few observers who have endured the hordes of mosquitoes abroad at that hour in a salt marsh have reported large counts of these "rare" birds. Two published accounts, both concerning localities in the Maryland portion of the Delmarva Peninsula, estimated more than a hundred birds heard in one night. The scarcity of observations elsewhere in similar habitat is likely due more to the lack of observers than of birds.

Surprisingly, these rails are not hard to approach with the aid of a light. One bird was actually stalked and captured alive by hand with aid of head-lamps. By daylight

its extreme reluctance to flush, together with its small size and mouse-like creeping, render it nearly impossible to discover.

Nearly all published paintings and drawings of the black rail show the bird as squat and short-necked. The above mentioned captive, which was kept in a cage for a time, (it thrived on worms, grasshoppers and wheat germ), permitted close observation and photography. The bird was as thin necked and gangly as other rails, which can also look short-necked when the head is not extended.

It is the small size of the black rail which makes it unique; it is the size of a bob-tailed sparrow. The white spots on the body and reddish-brown back also help identify it. Very young, downy-plumaged rails of other species are black, and may be mistaken for this species.

The black rail is primarily coastal, breeding from Massachusetts south to Florida, and also on the West Coast from central California south. There are widely scattered instances of it breeding in the Central States, Kansas and Nebraska, but away from the coast it is mainly a straggler. It winters south of the United States.

The only definite nesting records in Virginia are from the Eastern Shore. Inland, they have occurred at Roanoke, Blacksburg and Abingdon.



\$3600 IN PRIZES!



26TH
ANNUAL

WILDLIFE ESSAY CONTEST

SEPT. 11, 1972 · JAN. 19, 1973

SUBJECT:

YOUTH'S ROLE IN THE MANAGEMENT OF WILDLIFE RESOURCES

RULES

1. Students from all Virginia schools, grades 5-12 inclusive, are eligible.
2. Essays must be submitted through the schools participating. To be eligible, schools must submit an official entry card to receive materials.
3. Each essay submitted must indicate in the upper right hand corner: County, City, School, School Address, Principal, Grade, Name.
4. High school seniors competing for a scholarship must submit a completed scholarship form, obtainable from contest headquarters, attached to their essays.
5. Essays should not exceed 750 words.
6. Essays will be judged on the basis of originality, effort, grammar, expression and grasp of the subject. Final judging will be made by a panel of judges, representing the Commission of Game and Inland Fisheries, the Virginia Division of the Izaak Walton League of America, and the Virginia State Department of Education.
7. All essays must be sent prepaid (or delivered) to specified judges and postmarked not later than January 19, 1973. For specific details see "Instruction Sheet to Teacher" found in the materials packet.
8. School awards will be made for 100 percent student participation.

PRIZES

- 1 High School Senior Conservation Scholarship \$1000.00.
- 1 High School Senior Conservation Scholarship \$400.00.
- 8 Grand Prize Awards, \$50.00 each, one to each eligible grade.
- 8 Second Prizes, \$25.00 each, one to each eligible grade.
- 24 Third Prizes, \$15.00 each, three to each eligible grade.
- 24 Honorable Mention Prizes, \$10.00 each, three to each eligible grade.

Special Mention Prizes, \$5.00 each, divided among eligible grades in proportion to response.

School Awards.

The Scholarship Winners and the Eight Grand Prize Winners will come to Richmond as guests of honor of the sponsors and will have their awards presented to them at the Capitol. Others will be given their awards in their schools.



Sponsored By

THE VIRGINIA COMMISSION OF GAME
AND INLAND FISHERIES

THE VIRGINIA DIVISION OF THE IZAAK WALTON
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THE VIRGINIA RESOURCE-USE EDUCATION COUNCIL
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ASK YOUR TEACHER TO ENTER YOUR SCHOOL NOW!